



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,912	04/05/2004	Yasuhiro Uehara	046601-5133	2644
9629	7590	10/17/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			GLEITZ, RYAN M	
			ART UNIT	PAPER NUMBER
			2852	
DATE MAILED: 10/17/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/816,912

Applicant(s)

UEHARA ET AL.

Examiner

Ryan Gleitz

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/05/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the belt edge detecting mechanism and guide (claims 9, 14, and 15) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1-16 are objected to because of the following informalities:

“the rollers” (claim 1, line 4; claim 16, line 10) lacks antecedent basis;

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, 6, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Moser (US 5,729,812).

Moser discloses a fixing device including a fixing belt module and a pressure belt module as shown in figure 1.

The fixing belt module includes a fixing roller (14) having a heat source (18), one or more tension rollers (28) at a fixing side and an endless fixing belt (26) looped and stretched around the rollers to thereby rotate.

The pressure belt module including an endless pressure belt (20) that comes in contact with an outer peripheral surface of the fixing belt (26) only within a range of a section where the fixing belt (26) is wrapped around a surface of the fixing roller (14), thereby forming a nip section for fixation between itself and the fixing belt (26), wherein the fixing belt module includes a fixing belt heating unit (30) that heats an inner peripheral surface and/or the outer peripheral surface of the fixing belt at any sections other than the section where the fixing belt (26) is wrapped around the outer peripheral surface of the fixing roller (14).

Regarding claim 3, at least one of the tension rollers (28) at the fixing side in the fixing belt module has a heat source (30) disposed there in for serving as the fixing belt heating unit.

Art Unit: 2852

Regarding claim 5, the pressure belt module further includes a pressure roller (12) and one or more pressing-side tension rollers (22), and the pressure belt (20) rotates as stretched by the rollers; the pressure roller (12) is urged toward the surface of the fixing roller via the pressure belt and the fixing belt; and a predetermined length of the pressure belt toward an upstream side in its rotating direction from a section of the pressure belt (20) that is urged toward the surface of the fixing roller (14) by the pressure roller (12) is pressed and wrapped around the outer peripheral surface of the fixing belt at the section wrapped around the fixing roller, thereby forming a nip section for fixation between the fixing belt (26) and the pressure belt (20).

Regarding claim 6, the nip section for fixation is preferably formed at the upstream side of the fixing belt within the range of the section around which the fixing belt is wrapped.

Regarding claim 16, the fixing device is in an image forming device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 2852

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moser (US 5,729,812) in view of Hayashi et al. (US 2002/0009306).

Moser discloses the fixing device above, but does not disclose an elastic layer on the fixing roller or a second tension roller in contact with the outer surface of the belt.

However, Hayashi et al. disclose a similar fixing device including tension roller (31) in contact with the outer peripheral surface of the fixing belt (2), and an elastic layer around a cylindrical member as the fixing roller (4). See [0048]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the fixing device of Moser with the tension roller taught by Hayashi et al. to accurately set tension in the fixing belt by adjusting the disposing position of the tension roller, [0044], and to modify the fixing roller of Moser with the elastic layer taught by Hayashi et al. to provide a sufficient nip width even with the pressing force is small, [0048].

Claims 7, 8, and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moser (US 5,729,812) in view of Yura et al. (US 6,795,678).

Moser discloses the fixing device above, but does not disclose a pressure member.

However, Yura et al. disclose a similar fixing device including an additional pressure member (19) as part of a pressure belt module (14). The pressure member is formed into a pad shape. See figures 4-10. Nip pressure of the pressure member for pressing the fixing roller is locally increased at the vicinity of an outlet of the nip section. Col. 7, lines 14-16.

The fixing roller (17) has at least an elastic layer formed on the peripheral surface of the cylindrical member, and the elastic layer formed on the fixing roller must include a deformation due to the urging of the pressure member. See col. 6, lines 6-15.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the fixing device of Moser with the pressure member and elastic layer taught by Yura et al. to allow a long, uniform first nip can be formed between the stationary member and the pressing member without resorting to a heavy load. Col. 11, lines 1-8.

Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moser (US 5,729,812) in view of Asanuma (JP 02-210480).

Moser discloses the fixing device above but does not disclose a belt edge position detecting mechanism.

However, Asanuma disclose a fixing device including a belt edge position detecting mechanism (12) for detecting a position of a belt edge of the pressure belt (10) now rotating and a shaft shifting mechanism (20) for shifting a position where the belt is in contact in a shaft direction of the roller according to a detected result of the belt edge detecting mechanism (12). See abstract.

It would have been obvious to one of ordinary skill in the art at the time to invention was made to modify the fixing device of Moser with the belt edge detecting mechanism taught by Asanuma to correct snaking of a pressure belt. See abstract.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moser (US 5,729,812) in view of Yura et al. (US 6,795,678) as applied to claims 7, 8, and 10-13 above, and further in view of Asanuma (JP 02-210480).

Moser discloses the fixing device above but does not disclose a belt edge guide.

However, Asanuma disclose a fixing device including a snaking correcting means (20) as a belt edge guide.

It would have been obvious to one of ordinary skill in the art at the time to invention was made to modify the fixing device of Moser with the belt edge detecting mechanism taught by Asanuma to correct snaking of a pressure belt. See abstract.

Other Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakamura et al. (US 6.895.206) disclose a pressure belt and a fixing belt that contact only at the nip.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Gleitz whose telephone number is (571) 272-2134. The examiner can normally be reached on Monday-Friday between 9:00AM and 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2852

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

16
rg



Arthur T. Grimley
Supervisory Patent Examiner
Technology Center 2800